

Milwaukee Road Railroad Overpass
Spanning the abandoned Chicago, Milwaukee,
St. Paul & Pacific (Milwaukee Road) Railroad
grade at Orange Street
Missoula
Missoula County
Montana

HAER No. MT-100

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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
Rocky Mountain System Support Office
National Park Service
P.O. Box 25287
Denver, Colorado 80225-0287

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HISTORIC AMERICAN ENGINEERING RECORD
MILWAUKEE ROAD RAILROAD OVERPASS

I. INTRODUCTION

Location: Spanning the abandoned Chicago, Milwaukee, St. Paul & Pacific (Milwaukee Road) Railroad grade at Orange Street at Missoula in Missoula County, Montana.

Quad: Southwest Missoula

UTM: 12/728520/5194880

Date of Construction: 1936

Present Owner: Montana Department of Transportation
2701 Prospect Avenue
Helena, Montana

Present Use: Highway Bridge

Significance: The Milwaukee Road Overpass is an excellent example of a reinforced concrete T-beam bridge. The design was the most commonly utilized by the Montana Highway Commission for railroad overpasses constructed as part of the federal government's Works Program Grade Separation program. This overpass is representative of the design and its construction is typical of how the government's New Deal "make work" programs functioned, particularly the National Re-employment Service. This particular project was also the scene of a violent labor strike over wages paid to workers on the project and included considerable animosity between a veteran Montana bridge construction company and an Oregon firm new to the state working on an adjacent project (HAER No. MT-99).

Historian: Jon Axline, Montana Department of Transportation, February, 1999

II. HISTORY

The first recorded Euro-American incursion into the Missoula Valley occurred in September, 1805, when several hunters from the Lewis and Clark Expedition entered the valley from the group's camp (Traveller's Rest) at the mouth of Lolo Creek, nine miles south of the existing Milwaukee Road Railroad Overpass. During the expedition's return east the following year, it again camped at Traveller's Rest in early July, 1806. After a four-day layover at Traveller's Rest, Lewis and his co-captain, William Clark, split the Corps of Discovery into three units, each detailed to explore as much territory as possible between the Bitterroot Valley and the confluence of the Missouri and Yellowstone Rivers, about 565 miles to the east. On July 3, 1806, nine expedition members and five Salish Indians under Meriwether Lewis's command descended the Bitterroot River to its junction with the Clark Fork River at present-day Missoula. Lewis reported that

[H]ere the [I]ndians recommended our passing the river which was rapid and 150 yds wide. [Two] miles above this place I passed the entrance of the East branch of Clark's River which discharges itself by two channels; the water of this river is more turbid [sic] than the main stream and is from 90 to 120 yds wide. [As] we had no other means of passing the river we busied ourselves collecting dry timber for the purpose of constructing rafts

Heavy Spring run-off on the Clark Fork swept Lewis and two men several hundred yards downstream to the vicinity of the existing Orange Street Bridge (HAER No. MT-99), where they were able to use partially submerged willows to pull themselves from the river. After camping overnight at the mouth of Hellgate Canyon at the east entrance to the Missoula Valley, the party left the valley and ascended the Blackfoot River to the Missouri. Lewis's detachment rejoined the expedition on the Missouri River near the mouth of Yellowstone River on August 12, 1806.¹

When the Lewis and Clark Expedition crossed the continental divide in August, 1805, it entered territory that had been claimed by Great Britain since the late 18th century. Once news of the expedition's discoveries reached Canada, British and French-Canadian fur trappers and traders invaded what was called "Oregon Territory." Indeed, for over eight decades, Canadians dominated the fur trade west of the continental divide in Montana. Between 1807 and 1821, western Montana was extensively explored and exploited by traders from the Canadian North West Fur Company. Like its rival the Hudson Bay Company (HBC) further to the east, the "Nor'westers" were aggressive explorers and traders, relying almost exclusively on the region's aboriginal inhabitants to trade furs and pelts at the company's posts. By 1811, the North West Company had established trading posts on the Clark Fork River near Thompson Falls, on the Kootenai River near Libby and adjacent to Flathead Lake near Kalispell. Called Saleesh or Salish House, the Clark Fork River outpost provided the base from which company Factor David Thompson explored much of northwest Montana. In late February, 1812, Thompson mapped the confluence of the Bitterroot and Clark Fork rivers in the Missoula Valley from a vantage place on Mount Jumbo. The Nor'westers dominated the fur trade in the valley and Pacific Northwest until it forcibly merged with the HBC by the British government in 1821. The HBC then assumed the North West company's former role and conducted a lively trade with the Salish, Kootenai and Pend d'Orielle Indians from its trading post, Fort Connah, located about sixty miles north of the Missoula Valley.²

The west side of the continental divide in Montana was a British possession until the Convention of 1818 designated the area between the 49th parallel in the north and Spanish possessions in the south as a territory of joint occupation with the Americans. Consequently, the Bitterroot and Missoula valleys were frequented primarily by trappers working for either the HBC or American fur companies. In June, 1846, the British relinquished all claims to the area south of the 49th parallel and "Oregon Territory" became the property of the United States. The HBC, however, was reluctant to give up its lucrative trade network in northwest Montana. It was not until 1871 that Canadian company closed its last remaining outpost in the United States – Fort Connah.³

In September, 1841, Jesuit Father Pierre Jean DeSmet established St. Mary's Mission near the Bitterroot River at present day Stevensville, 36 miles south of Missoula. Generally credited with cultivating the first wheat and importing the first cattle into Montana, the mission was active in the valley until 1850 when threatened Blackfeet hostilities forced its closure. A former fur trader, John Owen, purchased the complex in 1850 for \$300 and expanded it into the preeminent trading post in western Montana. Fort Owen was the first permanent American settlement in the vicinity of Missoula and continued to function until 1872, when Owen's deteriorating health and declining revenues from his fur and agricultural interests forced him to close the trading post. By then, however, both the lower Bitterroot and Missoula valleys was well known to American traders, miners and settlers. In 1853, surveyors under the command of Washington Territory governor Isaac Stevens made the first of a series of surveys through northwestern Montana in search of a route for a transcontinental railroad. The Stevens Expeditions laid the groundwork for the establishment of the Missoula valley as an important transportation center for northwestern Montana. Importantly, Stevens's aide, Lieutenant John Mullan extensively explored and mapped the Bitterroot and Clark Fork drainages in western Montana.⁴

Both Stevens and Mullan noted that although the Missoula area was the aboriginal territory of the Salish Indians, the region was also frequented by Kootenai, Blackfeet and Pend d'Orielle Indians. Realizing the strategic importance of the valley, Stevens induced the Salish, Kootenai and Pend d'Orielle Indians to sign the Hellgate Treaty at Council Grove about seven miles west of Missoula in July, 1855. The treaty established the Flathead Reservation in the Mission and Jocko river valleys to the north, provided an annuity to the tribes and gave the U.S. government the right to construct railroads and roads across tribal territory. The treaty also effectively opened up the Bitterroot and Missoula valleys to non-Indian settlement. By late 1860, Mullan had completed a 624-mile military wagon road through the Missoula valley that connected Fort Walla Walla in Washington Territory with Fort Benton, the head of navigation on the Missouri River.⁵

In 1863, Mullan presented a report of his activities to Congress. Two years later, in 1865, he republished parts of it as a traveler's guide for those wishing to cross or settle in the new territory. He described the Missoula valley as already the site of ten or fifteen farms in the Frenchtown area, with plenty of room for more. Further, he reported

The small creeks in the [valley] offer many choice sites for farms; a dozen at least are here now under cultivation. Wheat, potatoes, oats and barley, and all vegetables are raised.

According to Mullan, the traveler should reach the Missoula valley by the 28th day out from Fort Walla Walla in Washington Territory. By late 1860, a trading post had been established adjacent to the Mullan Road by Frank Worden and Captain C. P. Higgins. By 1863, it included a store, blacksmith shop and several cabins. The traveler, Mullan recommended, should consider resting

his animals at the trading post where "supplies of all kinds can be obtained . . . if needed."⁶

The Mullan Road provided the impetus for the settlement of the Missoula valley as it facilitated access to it from the west and the east. By May, 1864, the Hell Gate settlement included 72 people, a store, cabins, barn, saloon, blacksmith shop and assorted outbuildings. The community reported by Mullan in 1863 was located about four miles east of the existing Milwaukee Road Railroad Overpass at the entry to Hell Gate Canyon. By late 1864, three members of the community had established the Missoula Valley Mill, a sawmill that provided lumber to settlers in the Missoula, Bitterroot, Big Blackfoot and upper Clark Fork River valleys. Within a few years, several other sawmills had been established in the valley, making the Hell Gate area more significant as a lumber town than for its agriculture as reported by Mullan in 1863. The lumber boom in the valley expanded after gold was discovered at Flint Creek (1864), Last Chance Gulch (1864) and Cedar Creek (1870). Although federal support of the Mullan Road disappeared in 1863 because of the demands of the Civil War, the route was kept open by individual entrepreneurs who "adopted" segments of it and maintained them as toll facilities. The valley's strategic location on the road stabilized the economy and contributed to a steady population growth at Missoula in the late 1860s. When the Cedar Creek gold mines played out in 1873, many of the people living in the mining camps there re-settled in the Missoula Valley. Although the valley was part of Idaho Territory beginning in 1863, the creation of Montana Territory in May, 1864 placed it within the boundaries of the new territory. Hell Gate functioned as the Missoula County seat until 1866, when it was removed to the new community of Missoula.⁷

Missoula was already a thriving community when the Northern Pacific Railroad arrived in 1883. The town remained an important transportation center with five roads passing through the town. The sawmills, however, continued to dominate the area economy even after Fort Missoula was established by the U.S. Army about three miles west of town. The post was located in the valley ostensibly to protect settlers in the Missoula and Bitterroot valleys from any possible Indian raids from the Flathead Reservation. In June, 1883, the Northern Pacific Railroad reached Missoula. The railroad provided access to markets both within Montana and out-of-state for the farmers, ranchers and lumbermen. Northern Pacific executives designated the city a division point for the railroad and constructed extensive switching yards and repair shops just to the north of the Milwaukee Road Overpass. The presence of the transcontinental railroad caused the Missoula economy to boom. In 1885, the city was formally incorporated; three years later, in 1888, W.J. Stephens and W.M. Bickford platted the first large addition to the city - South Missoula. Although Stephens and Bickford had grandiose plans for the new addition (which they planned as a self-contained community), Judge Hiram Knowles thwarted them by platting the First Knowles Addition in 1889. This addition cut the South Missoula Addition off from the Clark Fork River. The south approach of the Milwaukee Road Railroad Overpass was located in the Sunnyside Addition, an extension of the Knowles Addition.⁸

By 1890, the population of Missoula included 3,425 people. The 1890 Sanborn Fire Insurance Map for Missoula indicates that the area north of the Clark Fork River near the Milwaukee Road Railroad Overpass was occupied by several wood frame boarding houses. The map also suggests that the area may have been the site of the Missoula Red Light District. By 1908, when the Milwaukee Road Railroad arrived at Missoula, the area was dominated by commercial enterprises, indicating that the area had become dependent on the transportation opportunities afforded by the nearby Northern Pacific and Milwaukee Road railroads. The city's growth was also augmented by the establishment of the University of Montana at Missoula in 1895 and by the location of the United States Forest Service's Region One headquarters there in 1908. Growth in the vicinity of the future site of the Milwaukee Road Overpass also remained steady

during the period. A substantial residential district had grown up on the south side of the river in the Sunnyside Addition. While most of the commercial development occurred north of the Clark Fork River, a large lumber yard, Polley Lumber Company, opened its doors at the site of the railroad overpass in 1910. The area was also traversed by the Orchard Homes Ditch (24MO545), an irrigation system constructed in 1907 to provide water for small fruit orchards in the Orchard Homes Subdivision about two miles to the southwest. Evidence also suggests that the low-lying marshy area adjacent to the Clark Fork River near the Milwaukee Road Overpass was utilized as a city dump by 1917. "

Missoula's strategic location at the confluence of five major western Montana valleys assured a stable economy and steady growth even during the lean years of the Great Depression. The city was also at the crossroads of three interstate highways: U.S. Highways 10, 12 and 93 and Montana Highway 200. By 1935, the population of Missoula was around 18,000 people. To alleviate the traffic congestion in the heart of the city, Missoula city planners and others began lobbying for a bypass around the business district that would provide a more direct connection between U.S. Highway 93 from the Bitterroot and Jocko valleys and U.S. Highway 10. The proposed Missoula Bypass, however, would need three bridges: the Milwaukee Road Railroad Overpass, Orange Street Bridge (HAER No. MT-99) and the Orange Street Underpass (24MO365). Key to the developers' and promoters' plans was the involvement of the Montana State Highway Commission (SHC). In May, 1935, Missoula County Commissioners and attorney Howard Toole first approached the SHC "urging consideration of several highway projects in and around Missoula." The SHC, however, were unable to provide any hope for the projects because of a lack of available federal funding.¹⁰

On November 1, 1935, a delegation of Missoula businessmen, led by the mayor and city commissioners, appeared before the SHC to support the Harrison and Orange street alternate for the proposed Missoula Bypass project. Although no funds were as yet available for the by-pass project, the SHC voted unanimously to accept the Missoula delegation's recommendations. Despite the lack of funding, the SHC programmed the Missoula Bypass Project, WPMS 374, that same day. The passage of the Emergency Relief Act by Congress in July, 1935 provided the funds needed to construct the by-pass in Missoula. Consequently, on February 24, 1936, advertisements appeared in the *Daily Missoulian*, *Western Engineering News* and other publications requesting bids for the construction of a reinforced concrete overpass on Orange Street in Missoula. Designated the U.S. Works Program Grade Crossing Project No. WPGM 374-A, the project also included the construction of 0.144 miles of approach roadway. According to the contract,

workers on the project had to be hired from the Missoula office of the United States Employment Service - a stipulation that led to delays in the completion of the project. The timely completion of the railroad overpass was also critical to the successful completion, on time, of the adjacent Clark Fork River bridge (HAER No. MT-99) project.¹¹

The Orange Street Overpass was one of 35 projects built under this federal program. Initiated as part of the Emergency Relief Appropriation Act of July, 1935, the objective of the Works Program Grade Crossing (WPGC) was intended to provide safe crossings of busy railroads in urban areas. According to the terms of the program, the federal government would provide approximately 65% of the construction costs of the overpass while the railroads would pay the remaining 35% of the construction costs. Although the state highway departments developed the

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design for the overpasses, the railroads had to approve the design before the Bureau of Public Roads sanctioned the project. In Montana, most (37%) of the overpasses were constructed in 1936, with the second most active year being 1934 (17%). Of those, 45% were reinforced concrete structures built from a standard plan developed by the SHC's bridge department in 1931. The Milwaukee Road Overpass was designed by Vere P. Maun.¹²

Because the area in the immediate vicinity of the project area had been developed as a residential area since about 1890, the SHC had considerable difficulty securing the right-of-way necessary for the construction of the overpass. The problems were also compounded by the presence of the Orchard Homes Ditch, substantial residences in the Sunnyside Addition and the proximity of the city dump in the flood plain on the east side of the project area. Indeed, one homeowner living near the Milwaukee Road Railroad tracks adjacent to the Polley Lumber Company complex complained that the proposed overpass and Orange Street Bridge (HAER No. MT-99) would block his view of the Clark Fork River (and, incidentally, the dump). The SHC agreed at its February 28, 1936 meeting not to award the contract for the overpass to any of the eight companies that had submitted bids until the right-of-way difficulties had been resolved. Part of the problems experienced by the Commission also involved the city's reluctance to close certain side streets to accommodate the presence of the new railroad crossing. Consequently, the SHC agreed to construct a ramp off the west side of the south approach of the overpass to allow access to Orange Street directly from the Sunnyside Addition.¹³

By the end of March, 1936, most of the right-of-way for the project had been secured by the State Highway Commission. Despite the initial hostility of the surrounding landowners, no property was condemned by the Commission for the project. On March 24th, the SHC awarded the contract for the construction of the overpass to the Thomas Staunton company of Great Falls, Montana for \$111,686.10. The Commission directed Staunton that the project had to be completed no later than August 31, 1936. Despite the SHC's promise to construct a ramp on the south approach to the bridge, a sufficient number of property owners in the area were still unhappy enough about the project to complain to Missoula's mayor and city commission. Consequently, the city failed to pass a resolution to close parts of Orange, Cottonwood and Chestnut streets by early April, 1936. While most of the right-of-way issues had been resolved, the SHC still had to contend with recalcitrant representatives of the Kate McCormick Estate, which owned property abutting the project area just off the southeast side of the construction zone, and because of right-of-way problems with the Polley Lumber Company on the southwest bridge approach. Even the man upset about losing his view of the river chose to fight the project just before construction was scheduled to begin. Because of the city's reluctance to curry poor favor with the area residents, it did not approve a resolution to close three of the streets adjoining the overpass project area. The SHC's only victory was restricting the kind of garbage dumped in the nearby landfill.

In reference to the request of the Bureau of Public Roads that we obtain a resolution from the City Council eliminating the dumping of refuse to a distance not closer than 200 feet from our project: I have discussed the matter with the City Engineer, and we went down on the ground and looked it over. All of this stretch of ground between the river and Front Street has been designated as a garbage dumping ground. However, the city has a very definite plan for the improvement and beautification of this stretch of [the] river as soon as the fill has been made by the dumping of refuse. The City Engineer advised that they would refrain from dumping any wet garbage within a distance of 200 feet m but that they would like to complete the dump as had been planned. . . . [I]f they do not

dump any refuse west of our present line, there would be a hole left in there which would be very unsightly.

Though not clear in the record, the SHC had, apparently resolved all of the issues regarding the overpass and the right-of-way by the second week of April.¹⁴

Although the SHC had awarded the contract to Staunton on March 24th, there was no indication to the Commission when the firm would begin construction of the overpass. Because the timely completion of the structure was critical to the construction of the adjacent Orange Street Bridge, State Highway Engineer Don McKinnon demanded on April 8th that Staunton provide him with a firm date for when construction would begin on the overpass. Consequently within a week, on April 15, 1936, the Staunton company began work on the Milwaukee Road Railroad Overpass. The firm initially employed fourteen men, most of which were acquired from the National Re-employment Service office in Missoula. The SHC assigned Richard Slattery as the Project Engineer for the project, while Evarts H. "Blake" Blakeslee was Staunton's foreman. A recognized specialist in the use of reinforced concrete, Blakeslee began his career as a Project Engineer for the SHC in 1918 before forming a partnership with Staunton in 1936. Slattery was hired the Commission for this project in 1936. On April 16, 1936, Blakeslee optimistically reported to the *Daily Missoulian* that the project would be completed within four months.¹⁵

Before construction could begin, however, the SHC had to remove several people squatting on the site of the proposed bridge. Missoula District Engineer, Harold Tilzey reported to Helena that "These squatters have thrown up shacks; some of them of pasteboard, and with what lumber they could rustle, and others tin shacks." Commission attorney, and future Montana governor, John Bonner replied that it would be necessary for Tilzey to contact each trespasser and order them off the Commission's property by a specific date. Within a week, Tilzey met with the people, who agreed to abandoned their makeshift "Hooverville" by May 20th. There is no evidence suggesting that the squatters did not comply with Tilzey's order. The surviving SHC correspondence also indicates that not all the alignment and grade problems had been solved by the time Staunton began work on the project. It was not until the day after construction began on the project on April 16th, that the Missoula City Commissioners denied the Commission's request to close adjacent Chestnut, Orange and Cottonwood streets to accommodate the new railroad overpass. Instead, the City Commissioners decided that the alignment would have to utilize those existing streets because of opposition by local property owners. Although the council members reported that "Later on it will be necessary to for the city council to go to bat with the property owners", the streets open onto the original 1936 alignment.¹⁶

The Staunton company, meanwhile, had cleared the work area and begun excavation of the 21 foundations necessary for the overpass foundations by April 22nd. Staunton employed forty men to excavate the foundation. Concurrently, Milwaukee Road Railroad crews raised the three power lines that provided electricity to the railroad's locomotives from the standard 32-feet to 90-feet above the tracks to keep them out of conflict with the workers constructing the overpass. After a four-day delay caused by bad weather, Staunton completed excavation of the foundations on the south side of the bridge on April 28th and began pouring concrete for Bent No. 1 the following day. Unfortunately, on the north side of the construction zone, workers discovered an abandoned well that had been partially filled with rusty machinery. It took them another four days to remove the old machinery, excavate the well and fill it with concrete to provide a solid foundation for the north footings. Because no core drillings had been done in advance of the project, work crews had to lower the footings an several additional feet to obtain a foundation for the structure that rested on solid gravel. On April 29th, the SHC approved Staunton's contract

with the Colorado Builders Supply Company of Pueblo to provide the 9,750 tons of steel necessary for the reinforced concrete. By May 10th, the Staunton Company completed the construction of the footings for the overpass.¹⁷

Technical problems involving the location and maintenance of the overpass continued even after the Staunton company had begun construction. In early May, 1936, the SHC issued an Extra Work Order that included the extension of Cottonwood Street to the south approach to the overpass. The extension necessitated the construction of a ramp that resulted in limited site distances for vehicles turning onto Orange Street. The work order also included the construction of a small bridge crossing the Orchard Homes Ditch and the removal and relocation of an old headgate on the irrigation structure. Less than two weeks later, on May 16th, the SHC's attempt to coerce the Missoula County Commissioners into assuming maintenance of the Missoula By-Pass (including the Milwaukee Road Railroad Overpass and the yet to be built Orange Street Bridge) failed. The County Commissioners contended that since portions of the by-pass were located within Missoula city limits, the Missoula City Council was obligated to take responsibility for the new road and bridges.¹⁸

Work on the overpass substructure progressed rapidly through the month of May and into June. The Staunton company employed an average of 44 men during May and June, most of which were carpenters, hired through the National Re-employment Service (NRS) office in Missoula, to construct the forms for the bents. On May 21st, the *Daily Missoulian* reported that

Progress is being made on the overpass contract. Considerable excavation work has been done. Forms have been erected for other concrete work and are plainly visible from Broadway and from the Higgins Avenue Bridge.

By the first week in June, however, problems with NRS regulations resulted in a slow-down in work on the overpass. Indeed, much of the surviving correspondence for this project involves the labor situation regarding the number of men employed, their wages and qualifications. Eventually, the restrictive regulations and perceived inequalities in the hiring and wages, led to a strike that crippled the project and resulted in violence.¹⁹

On July 10, 1936, Chief Highway Engineer Don McKinnon informed Thomas Staunton that the Milwaukee Road Overpass project was severely behind schedule. Further, he stated, "Our engineer reports that progress on this project the past three or four weeks has been very slow due to the fact that your efforts have been concentrated on another project." McKinnon suggested that Staunton hire additional men to get the project back on schedule. The Chief Engineer's sentiments were echoed by Bureau of Public Roads Chief Engineer William Lynch. Staunton's foreman, Evarts Blakeslee, however, placed the blame squarely on the NRS office in Missoula,

Referring to the matter of the labor requirements, it appeared to be physically impossible for the National Re-employment Office . . . to provide qualified craftsmen and this situation prevailed throughout the period of construction operations. Old men, railroad and barn carpenters were imported from Great Falls and other small towns in the vicinity of Missoula, and were entirely unqualified to serve as form carpenters, and in most instances the individual so stated and left the work voluntarily, this situation resulting in constant disorganization. . . There were none available and I was forced to use whatever I could obtain, educate them and pay the high scale that applied.

The project was also hampered by mis-communication between the SHC, Staunton and the

Milwaukee Road Railroad. In one case, the SHC proposed lowering the overhead clearance on the Milwaukee's passing track in response to Staunton's request. The request was denied after considerable complaint from the railroad company.²⁰

Much of Foreman Blakeslee's problems with the SHC and the NRS concerned the complicated regulations, bureaucracy and seeming inefficiency of the program. Each individual hired by the Staunton company had to possess a card that specified the man's status as either "relief" or "non-relief." These cards were sent to the contractor and not to the NRS, thereby causing a delay in when a man appeared on project and when he would be authorized to work. Consequently, the Staunton company's work force fluctuated wildly in both size and in turn-over. Regardless of experience, they were paid the prevailing wage scale determined by the Public Work's Administration. This wage scale was inconsistent with the wage scales previously used by the SHC and agreed upon by the labor unions. The contractor was also required to provide a monthly statement to the Statistical Department of the Montana Department of Labor delineating the cost of labor and supplies used on the project. The SHC Construction Department also kept a close eye on the number of men employed by Staunton and their NRS status. Because continued federal funding depended on the SHC obeying the regulations, it was essential that all violations be immediately dealt with when they occurred.²¹

In an attempt to get the project back on schedule, Staunton and Blakeslee hired four truck drivers from Cascade County in late July that had not been cleared by the Missoula NRS office. While all four men had been approved by the Cascade County NRS, the contractor discovered that that authorization did not apply across county lines. Once notified, Staunton immediately dismissed the men. His foreman, Blakeslee, however, had different ideas about the NRS,

These men follow construction work as a vocation. They are truck owners, and were put to work here . . . pending the issuance of cards by the local reemployment [sic] office, which office expressed some doubt as to their eligibility for employment at the time the men were put to work. . . . I was advised by the local reemployment [sic] office, and was further advised in a phone conversation . . . that these men were not eligible due to recent [Public Works Administration] and State Highway Commission interpretation of the regulations covering the employment of labor. . . . May I ask, can it be possible that unfair discrimination is being practiced in the matter of forced labor requirements on some contracting firms operating in the State of Montana? How does it happen that these men in controversy have been permitted to operate elsewhere in the State for other contracting firms during this year, and in one instance within a stone's throw of the State Capitol Building . . . ?

On August 21st, ten days before the project was scheduled to be completed, Project Engineer Richard Slattery reported to the SHC Construction Department that the men simply had not been issued cards because the men did qualify for work on the overpass project based on the regulations. Because of the men's status, they were not paid for several months after their dismissal. The Staunton company's relations with labor over the interpretation of the NRS regulations, however, continued to deteriorate. By mid-August, 1936, moreover, the company was not even getting along with the contractor constructing the neighboring Orange Street Bridge.²²

Progress on what should have been a fairly simple reinforced concrete railroad overpass slowed considerably again beginning in mid-July, 1936. On July 10th, Chief Engineer McKinnon complained to Staunton that work should already have begun on the earth fill approaches to the

overpass. Four weeks later, SHC Missoula District Engineer Harold Tilzey reported that work was well underway on the approaches by August 4th. The 90,000 cubic yards of fill material was acquired from the nearby site of the former Polley Lumber Company. Also on August 4th, Blakeslee received permission from SHC Bridge Construction Engineer Russell Stephenson to remove the falsework under spans nos. 1 and 5. Two days later, however, on August 6th, Blakeslee was injured in a fall from one of the bents of the adjacent Orange Street Bridge. Blakeslee, apparently, had gone to site to exhort Portland Bridge Company president R. E. Meith to hasten construction on Bents Nos. 1 and 2 of that project. The plans of the Milwaukee Road Railroad Overpass depended on the timely construction of the Orange Street Bridge bents. When the Portland Bridge Company failed to meet the deadlines stipulated in its contract, Blakeslee became worried that he would be unable to meet the new September deadline imposed on him by the Commission. Despite the loss of Blakeslee from the construction site for two weeks in August, the Milwaukee Road Railroad's engineers approved Staunton's plans for the center spans of the overpass.²³

Blakeslee was loud and descriptive in his condemnation of the Portland Bridge Company. From his hospital bed on August 13th, he wrote SHC Bridge Engineer Ralph Rader that

Referring to the letter of the Portland Bridge Company, dated August 8th last . . . the writer is pleased to have been favored with a copy of this expostulation of alleged facts for particularly educational reasons, it being a post graduate thesis on (Stalling for Time), and might at some future period be of immense value to a now young and experienced individual . . . [A]bout three months after the state of award of contract it appears from Paragraph #3 of the Portland Bridge Company's letter the spirit moved President Meith to make (all the necessary arrangements) with the writer, and at a time when this unfortunate individual was full of bop, lying on a slab at the local hospital. Should Meith had succeeded in making this contract, it occurs beyond every doubt he would have effected a satisfactory non-conflicting schedule of operations, viz: performing the excavation and fill at the same time, in the same location, under two contracts, by two separate firms.

Indeed, Blakeslee blamed most of his company's problems on the inability of the Portland Bridge Company to meet its deadlines on the Orange Street Bridge.²⁴

Upon Blakeslee's return to work about August 20th, work progressed rapidly on the overpass. On August 21st, the *Daily Missoulian* reported that work had begun on the three center spans of the overpass and that the approaches on the south side of the structure had been completed. His troubles with the Portland Bridge Company overcome, Blakeslee began work on the north approach to the bridge between the overpass and the Orange Street Bridge. The newspaper reported that a steam shovel, a scraper and three trucks were working on the north approach.²⁵

On September 11th, however, new trouble arose based on the NRS/SHC's prevailing wage scale and the wage scale demanded by the Missoula County Trades and Labor Council (MCTLC). On September 11th, two representatives from the MCTLC's Plasterers' and Cement Finishers' Union served notice to Thomas Staunton that the wages paid to the union's members were about 50¢ lower than their prevailing wage of \$1.50 per hour for skilled labor. The Council also accused Staunton of paying common labor 27½¢ below the prevailing union wage of 87¢ an hour in Missoula County. Claiming that he was paying the wages stipulated in the Works Progress Administration's regulations, Staunton refused to accede to the union's demands. Consequently, on September 12th, the union walked off the Milwaukee Road Railroad Overpass job. In

sympathy, members of the carpenters and Teamsters' Union also struck the work site. The strike occurred with only the center span, curbs and guardrails yet to be completed.²⁶

With his second deadline fast approaching, Staunton hired non-union replacement workers to take the place of the project's union workers on September 18th. Within hours, approximately 65 picketers appeared at the construction site to protest the hirings. The day before, the 60-year-old Staunton and his timekeeper, Edward Blackmore, were attacked by five members of the teamsters union outside the Oxford restaurant and pool hall after having eaten dinner. The five men, who Blakeslee later described as "ex-convicts and former hop heads", also filed charges of third degree assault against Staunton. While recuperating at St. Patrick's Hospital, Staunton was able to settle the strike and work resumed on the project on September 21st.²⁷

The labor strike proved to be the last of the serious difficulties experienced by the Staunton company on the Milwaukee Road Railroad Overpass project. On September 30th, the *Daily Missoulian* reported that the overpass was nearly completed with only the curbs and handrails yet to be installed; the approaches also needed to be surfaced. In July, 1936, the SHC and Missoula Board of County Commissioners agreed to allow the county to install the lighting on both the overpass and the adjacent Orange Street Bridge. According to the verbal agreement between SHC Bridge Engineer Benjamin Ornburn and the county commissioners, the County would be responsible for purchasing the lamp posts, but could contract with Thomas Staunton to install them when the overpass project neared completion. Consequently, the county commissioners let a contract to the Walford Electric Company of Missoula on July 31st to supply the lamp posts. The SHC's Missoula District Engineer, Harold Tilzey, however, was concerned about the cost of the lighting project to the county. In a memorandum to Ornburn on September 11th, Tilzey stated,

If you have the time this coming week, I would appreciate very much if you would come over to Missoula in order that we might go and talk to the Board of County Commissioners concerning the installation of this lighting system. I believe it would be managed better if the commissioners could enter into the contract directly with the contractors to make this installation. I have talked to the commissioners about it, but they seem to think that they would like to go ahead as they talked to you. I do not know just what conversation you had with them, and therefore would like to have you come over the reason that I believe that Mr. Blakeslee is going to soak them plenty for any work that he does, and I feel that the Commissioners will blame us for it when they come to pay.

The county commissioners did not accept Ornburn and Tilzey's recommendations. On September 25th, the SHC issued a Change of Work Order to Staunton to install the lights on the overpass.²⁸

Bad weather in October, and the installation of the lamp posts on the Milwaukee Road Railroad Overpass prevented Staunton from completing the structure until October 28, 1936; the SHC bridge engineers accepted the project on October 29th. Almost immediately correspondence between the Staunton company and the SHC began in relation to the company not meeting the deadlines set for it by the Commission. The original project deadline was August 31, 1936. The SHC's problems involving right-of-way for the project caused a delay in actually awarding the contract for the overpass. The contractors's problems with the NRS in July, 1936 and the subsequent problems with the Portland Bridge Company and Missoula Trades and Labor Council made the second deadline in September impossible to meet for Staunton and Blakeslee. Consequently, a third deadline in October was imposed on the company; a deadline that was also

missed. Consequently, the State Highway Commission notified Staunton in early November, 1936 that it intended to invoke the Liquidated Damages clause of the contract.²⁹

In November, 1936, Blakeslee, acting in behalf of Thomas Staunton, initiated an intensive letter-writing campaign to persuade the highway commissioners to waive the liquidated damages on the Milwaukee Road Railroad Overpass project. In his correspondence, Blakeslee claimed that the bureaucratic and labor problems experienced by the firm made it impossible for Staunton to meet the deadlines imposed by the SHC. Blakeslee's arguments were supported by both Missoula District Engineer Harold Tilzey, Bridge Construction Engineer Russell Stephenson and by the project engineer, Richard Slattery. At the December 23, 1936 State Highway Commission meeting in Helena, Blakeslee presented a detailed letter describing the problems encountered by the contractor

I am submitting for your consideration certain facts pertaining [to] direct causes of delays encountered in the formal execution and delivery of contract documents and encountered throughout the construction period Certain items of work were involved in the contract that were not contemplated at the time bids were received, namely, the building of the ramp and the building of a road on Cottonwood Street Another major factor in my determination of the time to start grading operations was the uncertainty of the probable starting time and progress anticipated after starting by the Portland Bridge Company I was advised by the engineer in charge that such further cooperation as I could bestow upon Mr. Meith, or his firm, would be appreciated Referring to the matter of labor requirements, it appeared to be physically impossible for the National Reemployment Office at Missoula to provide qualified craftsmen and this situation prevailed throughout the period of construction operations. The National Reemployment Agent, William Thompson, deserted his post in disgust and I quote his departing statement made [to] the writer: 'Blake, it's too hot around here for me, I'm getting to hell out of here immediately. Life is too short to tolerate the abuse that I am subjected to from Helena and elsewhere.' Another cause of delay beyond my control was the strike called September 11th, terminating September 20th, causing a direct loss of nine days, requiring an additional four days to obtain newly qualified labor and craftsmen and effect reorganization. During the nine days, the technical duration of the strike, the National Reemployment Office was picketed by the Teamsters Union members, another situation somewhat beyond my control. What the strike was all about, by whom called and for what specific reason or reasons I have never been able to determine and the men who were called off the job did not know, nor do they know today, why the job was called.

Blakeslee's letter, supported by the testimony of Tilzey, Stephenson, Slattery and Chief Highway Engineer Don McKinnon, induced the SHC to waive the Liquidated Damages clause of the contract. With the completion of the Orange Street Bridge in July, 1937, the Missoula By-Pass was opened for traffic.³⁰

In late September, 1937, the Island Park Committee of Missoula petitioned the Montana State Highway Commission to transfer a 10 acre parcel adjacent to the Milwaukee Road Overpass to the City of Missoula for use as a city park. Because the land was no longer needed by the SHC, the Commissioners transferred the land to the city. Today, the property still functions as a city park.³¹

III. THE BRIDGE

A. DESCRIPTION

The Milwaukee Road Railroad Overpass is a three-span reinforced concrete T-beam structure with two reinforced concrete T-beam approach spans. The structure rests on four reinforced concrete bents. The bridge consists of two 50'11" spans and one 51'2" span. The approach spans are 27' each. The structure is supported on the ends by reinforced concrete abutments. The bridge has an overall length of 209-feet with a deck width of 30-feet and an out-to-out width of 41-feet. The deck includes two 15-foot driving lanes flanked by a 5'8" (east) and a 6-foot (west) sidewalks. The reinforced concrete spans provide a vertical clearance of 23'6" from the bottom of the outside girders to the top of the railroad grade. The structure has a maximum span length of 52-feet.

Substructure

There are two reinforced concrete abutments and four reinforced concrete bents. The abutments are numbered 1 (south) and 2 (north). The bents are numbered 1 through 4 beginning on the south end of the structure.

There are two reinforced concrete "tower" type approach spans at each end of the bridge that are designated Bent no. 1 (south) and Bent no. 4 (north). The approach spans are 27-feet in length and are encased by concrete side and retaining walls and concrete anchor (end) posts. The sidewalls are roughly triangular in shape and have decorative features etched into them.

Bent no. 1 consists of an open "hammerhead" type structure composed of three columns connected by two 32' concrete membranes at the top and bottom of the feature. The membranes are chamfered at the columns thereby presenting the appearance of brackets. The bent is recessed 6'7" under the overhanging deck of the structure. The bent is 31'6" in height, 2'3" deep and 47'4" wide. Each of the two openings ("doors") is 14' wide and 27'6⁷/₈" in height. The top of the bent has been incorporated into the superstructure, a design that is typical to this type of bridge. The columns are 3'7" wide and 2'1¹/₂" deep. The sill is 3'1" deep.

Bents nos. 2 and 3 consist of nearly the same dimensions. Bent no. 2 is 29' in height, 43.1 wide and 2'9" deep. Both have semi-elliptical openings formed by an arched 8'3" x 34'4" concrete diaphragm on the top and a 6' x 34'4" concrete diaphragm on the bottom. The "door" openings are 10' x 17'. Although Bent no. 3 is 29'4" in height, all the other dimensions are equal to Bent no. 2.

Bent no. 4 also consists of an open "hammerhead" type structure composed of three columns connected by two 32' concrete membranes at the top and bottom of the feature. The membranes are chamfered at the columns thereby presenting the appearance of brackets. The bent is recessed 6'7" under the overhanging deck of the structure. The bent is 31'6" in height, 2'3" deep and 47'4" wide. Each of the two openings ("doors") is 14' wide and 29'4¹/₂" in height. The top of the bent has been incorporated into the superstructure, a design that is typical to this type of bridge. The columns are 3'7" wide and 2'1¹/₂" deep. The sill is 3'1" deep. Bents nos. 1 and 4 are connected by a decorative concrete sidewalls called "tower" spans. The bents are also encased by concrete back or retaining walls. The interior of the structures, in which the bents are set, are in-filled with rubble. The sidewalls consist of triangular concrete slabs 33'6" x 26'3" x 7' and are 2' thick. Six squared "U"-shaped "bush hammered" grooves are incised onto the outside facades of the sidewalls. Each groove is 2¹/₂" wide and 1/4" deep and are spaced 2'2" apart. The

grooves range from 5' in length to a 22' length on each sidewall. The sidewalls are flanked by two concrete columns. The columns are 4' wide and 3' deep. The columns on the extreme south and north are 7' in length, while the inside columns are 26'3" in length. All four columns have three bush hammered grooves incised lengthwise along the feature. The grooves are the same dimension as those on the sidewalls. The backwalls are 19'9" x 41' and are 2'5" thick.

The sidewalls are surmounted by reinforced concrete guardwalls flanking the deck of the structure. Each guardwall is 24'3" long and 3' in height. They have six sets of three bush hammered grooves that are 1'10" long and 3" wide. The groove sets are spaced 2'2" apart.

Superstructure

The superstructure of the Milwaukee Road Overpass consists of three reinforced concrete T-beam spans. The superstructure is supported by seven lines of reinforced concrete girders. The five inside girders are 2' wide and 2'6" deep; the two outside girders are 1'1" wide and 5'6" deep and are flush with sidewalls of the structure. They are spaced 5' apart. Steel roller bearings are surmount Bents nos. 2 and 3 on the inside of the structure and allow for the thermal expansion and contraction of the superstructure. The bridge deck consists of five reinforced concrete slabs. The driving surface of the structure consists of two 15' driving lanes. The driving lanes are flanked by a 5'8" sidewalk on the east and a 6'0" sidewalk on the west; both sidewalks are raised 16" above the driving surface.

The guardrails consist of eighteen concrete railposts on each side of the structure that are 3' in height and 4' wide and 1'0" deep. The railposts are spaced 12' apart. The concrete anchor (end) posts are 4' x 3' with chamfered edges. The structure's guardrails consist of 21 sections of steel railings on each side of the bridge that are bolted to the railposts. A 7" x 2'6" steel plate is attached to one anchor post at each end of the bridge. The plates are stamped "C.M.S.T.P. & P. Railroad."

Material

The Milwaukee Road Overpass consists of 1,224.3 cubic yards of Class A and Class D concrete. The cement was obtained from the Trident Cement Company of Trident, Montana. The Class D concrete was used in the superstructure and bents, while the Class A concrete was used primarily in the sidewalls and retaining walls of the structure. The bridge also contains 187,500 pounds of reinforcing steel. The handrails consist of 256.5 linear feet of steel. The design plans indicate that 870 cubic yards of earth was excavated for the foundations of the bridge.

Reinforced Concrete T-Beam Bridges

Simple reinforced concrete T-beam bridges are common to Montana's roadways. Until the advent of prestressed concrete in the state after 1957, T-beam bridges were the most standard type of concrete bridge constructed by the Montana Highway Commission. First developed in the mid-1870s by Thaddeus Hyatt, the design derives its name from the "T"-shaped configuration of the support beam. The head of the "T" is incorporated into the deck slab of the structure which also functions as the floor of the bridge. While the steel reinforcement bars were fabricated as a separate unit, the "T" beams and deck slabs were cast as a single section at the construction site. Though not as easily constructed as timber stringer bridges, T-beam bridges were more suitable to areas of heavy traffic, but required skilled labor for their construction (Concrete formwork was generally the most expensive portion of the construction process, absorbing anywhere from 10% to 60% of the total construction cost of the bridge).³²

European and American engineers refined reinforced concrete technology during the last three decades of the 19th Century. In 1877, Thaddeus Hyatt published *An Account of Some Experiments With Portland Cement Concrete Combined With Iron as a Building Material*. Regarded by some experts as the primary document in the development of reinforced concrete, the treatise described the design of slab, box girder and T-beam bridges. Hyatt emphasized the suitability of reinforced concrete T-beam bridges for highways because of their rudimentary design and economy of construction. By the turn of the century the use of concrete boomed because of improvements in portland cement and reinforcing steel. By the 1920s, T-beam bridges were common to roadways throughout the country.³³

Although not as prominent as the concrete arch spans, T-beam bridges were more practical for bridging small crossings in the United States. They were usually nondescript with few decorative elements. Like timber stringer bridges, once engineers refined the design there was essentially no deviation from the standard style other than in length and the number of spans. The simplicity of the design made T-beam bridges well suited to the rapidly expanding highway systems in the United States during the first half of the 20th century.³⁴

In Montana, however, reinforced concrete T-beam bridges were the exception rather than the rule. While the Montana Highway Commission built nearly 1,000 timber stringer spans in the state between 1913 and 1956, it constructed only 110 T-beam bridges during the same period. Evidence suggests, moreover, that the Commission did not complete a standard T-beam bridge design until well into the 1920s (unlike the timber stringer, steel truss and girder designs). The Commission's bridge department had more than its fair share of engineers well versed in the design of truss bridges, but there does not appear to have been anyone on staff who specialized in reinforced concrete until the 1920s.³⁵

There are ninety-five pre-1956 reinforced concrete T-beam bridges located on on- and off-system roadways in Montana. The Commission constructed about 73% of the bridges between 1930 and 1936. Most were constructed in 1931 - two years prior to the initiation of President Franklin Roosevelt's New Deal programs. Most of the bridges are located in western and south central Montana. The design was particularly well suited to the federal government's Works Program Grade Separation program. Fully 20% of the 110 reinforced concrete T-beam bridges in Montana were constructed between 1933 and 1941 as part of this program. Although the length of the bridges varied according to the location, the average length of the Montana reinforced concrete T-beam bridges was about 105-feet and the width just over 20-feet. The longest T-beam bridge is located in Gallatin County. The eight-span structure (24GA1070) is 345-feet long and crosses the Montana Rail Link Railroad tracks near Logan. The shortest structure is 22-feet long and is located near Grantsdale in Granite County, Montana.³⁶

Fabricating companies located in Washington, Colorado, Minnesota, Oklahoma and Iowa manufactured the reinforcing steel used in Montana's reinforced concrete bridges between 1920 and 1945. Like the timber stringer bridges, the Montana Highway Commission awarded contracts to reinforced steel manufacturers on an annual basis instead of individually. The most prolific fabricator was the Seattle-based Pacific Coast Steel Corporation. Over a six year period between 1930 and 1936, the company provided material for nineteen structures - located primarily in western Montana. The Colorado Fuel and Iron Company of Pueblo supplied steel for twelve T-beam bridges during the same period. Other fabricators included the Colorado Builders Supply Company of Denver, the Paper Calmenson and Minnesota Steel & Machine Company of St. Paul, the Kolman Steel Corporation of Minneapolis and the Seattle branch of the Bethlehem Steel Company.³⁷

B. MODIFICATIONS

There have been no modifications or alterations to the Milwaukee Road Overpass since it was constructed in 1936. Two wood birdhouses, however, were attached to the blast plates on the east and west sides of the bridge shortly after it was completed in 1936. The birdhouses do not appear on the original plans for the structure. Currently the structure serves as an overpass for a pedestrian/bicycle trail adjacent to Missoula's McCormick Park.

C. OWNERSHIP AND FUTURE

The Milwaukee Road Railroad Overpass is currently owned and maintained by the Montana Department of Transportation. The department programmed the bridge for replacement in 1995 and a Memorandum of Agreement (MOA) was signed in December 1996. The Milwaukee Road Railroad Overpass will be demolished in 2000 or 2001.

IV. BIOGRAPHICAL MATERIAL

Thomas Staunton

One of Montana's most active road and bridge builders in the 1930s, Thomas Staunton was born in England in 1878. Two years later, in 1880, he emigrated to Minnesota with his family. In 1906, Thomas Staunton moved to Great Falls, Montana where he worked as an agent for the George L. Tracy Company, a wholesale grocers. Staunton's career as a contractor began about 1916 when he formed a partnership with James Fitzgerald. Fitzgerald & Staunton operated as general coal and railroad contractors until 1926, when they dissolved their association. For several years, Staunton was the vice president of F. J. Gies company, wholesale grocers and also had interests in the Kincaid Motor Company and in two breweries in Spokane, Washington.³⁸

In 1936, Staunton began a six year professional relationship with Evarts Blakeslee, a former SHC Resident Engineer and independent contractor. The Staunton & Blakeslee company built several reinforced concrete bridges in Montana until 1942 when the partnership was dissolved because of a lack of local work caused by the demand of the Second World War. Possibly because of his bad experiences with the SHC's Milwaukee Road Railroad Overpass project in Missoula, Staunton purchased a cattle ranch south of Great Falls near Cascade, Montana in 1937. In 1943, he retired from the general contracting business to devote full-time to his ranch. Thomas Staunton died in Great Falls after a lengthy illness in April, 1956.³⁹

Evarts H. Blakeslee,

Born in 1883 in Lake Geneva, Wisconsin, Evarts H. "Blake" Blakeslee, was long associated with the Montana State Highway Commission, both as an employee and as an independent contractor. After obtaining a degree in engineering from the University of Wisconsin, Blakeslee relocated to the Bitterroot Valley of west central Montana in 1906 or 1907. There, he worked as a surveyor and contractor on the Bitterroot Valley Irrigation District, a reclamation project designed to promote the cultivation of apple orchards in the valley. After the Apple Boom collapsed in 1917, Blakeslee removed to Helena, Montana and began work as a Resident Engineer for the State Highway Commission. Between 1915 and 1926, the SHC assigned Resident Engineers to supervise the construction of large bridge projects in the state. In 1919, Blakeslee was assigned to supervise the construction of the First Avenue North and Tenth Street Bridge (HAER No. MT-

8) projects in Great Falls. New job opportunities in the Electric City compelled Blakeslee to permanently relocate to Great Falls after the bridge projects were completed in 1921. Blakeslee's experience with the use of reinforced concrete on the two Great Falls bridges had a profound impact on his subsequent career as an independent contractor.⁴⁰

While still employed by the SHC in 1920, Blakeslee purchased the seven truss spans of the old First Avenue North Bridge in Great Falls for use at other sites. Between 1922 and 1941, Blakeslee built bridges in Montana and Wyoming. From 1925 until 1930, he worked as a general contractor in partnership with Angus McGuire. From about 1933 until his partnership with Staunton in 1936, Blakeslee worked with part-time Anaconda Company millman Robert Boomer to construct a number of concrete bridges in the Great Falls area. In 1936, he dissolved his association with Boomer and formed a partnership with Thomas Staunton to construct road and bridge projects in Montana. The partnership endured as Staunton & Blakeslee until about 1945 when Staunton retired to devote full-time to his cattle ranch. In all his incarnations, Blakeslee was best known for his knowledge and use of reinforced concrete for bridge construction.⁴¹

After the Second World War ended in 1945, Blakeslee formed the Utility Builders Company, a family business that specialized in the construction of curbs, gutters and pavement in the Great Falls area. Blakeslee remained active in the business until his death in October, 1967 at the age of 84.⁴²

V. FOOTNOTES

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7. Stuart, *Prospecting for Gold*, 157, 165; Burlingame, *The Montana Frontier*, 93; Roberta Carkeek Cheney, *Names on the Face of Montana: The Story of Montana's Place Names*, (Missoula: Mountain Press Publishing Co., 1990), 187; Malone, Roeder and Lang, *Montana*, 94; Lenora Koebel, *Missoula The Way it Was*, (Missoula: Pictorial Histories Publishing Co., 1972), 17-27, 31; Poll Lists for the Election of October 24, 1864 (to establish Montana as a territory). Montana Historical Society, Helena.
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10. Federal Writers' Project, *WPA Guide*, 173; Montana Highway Commission Meeting Minutes, Volume 6 (November, 1933 - June, 1936), 288.

11. Montana Highway Commission Meeting Minutes, Volume 6, 310, 371-372, 376; Contract. U.S. Works Program Grade Crossing Project No. WPGM 374-A. Between SHC and Thomas Staunton, March 24, 1936.

12. Other types of bridges built as part of the WPGM program included steel girder and steel stringer structures. Contract. U.S. Works Program Grade Crossing Project No. WPGM 374-A. Between SHC and Thomas Staunton, March 24, 1936; Montana Highway Commission Meeting Minutes, Volume 6, 310.

13. Montana Highway Commission Meeting Minutes, Volume 6, 436; Letter. William O. Whipps, SHC Secretary, to Bureau of Public Roads, March 25, 1936; Memorandum. Harold Tilzey, SHC Missoula District Engineer, to Helena Office, SHC, March 26, 1936; Memorandum. Tilzey to Helena Office, April 3, 1936; Tilzey to E. O. Parsons, SHC Right-of-Way Engineer, April 16, 1936.

14. Today, the former city dump has been reclaimed and has become a popular city park with up-scale condominiums and eating establishments bordering it. McCormick Park is also the site of summer concerts, plays and a restored early 20th century carousel. Contract. U.S. Works Program Grade Crossing Project No. WPGM 374-A. Between SHC and Thomas Staunton, March 24, 1936; Montana State Highway Commission Meeting Minutes, volume 6, 458; Memorandum. Tilzey to SHC Helena Office, March 26, 1936; Memorandum. Tilzey to SHC Helena Office, April 3, 1936.

15. Letter. D.A. McKinnon to Thomas Staunton, April 8, 1936; Memorandum. Tilzey to State Highway Commission. Helena, April 15, 1936; Telegram. Tilzey to W.H. Lynch, BPR, April 15, 1936; *Daily Missoulian*, April 16, 1936; Memorandum. McKinnon to BPR, April 17, 1936; R. L. Polk & Company, Great Falls Polk Directory, 1910 - 1945; R. L. Polk & Company, Missoula Polk Directory, 1930- 1939.

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19. Field Notebook: WPGM 374-A, Milwaukee Road Overpass, May 11, 1936 - June 6, 1936; "Work May Begin Soon on Bridge Contract Here," *Daily Missoulian*, May 21, 1936; Memorandum. Tilzey to SHC Helena Office, October 30, 1936; Memorandum. R.E. Slattery, Project Engineer, to SHC Construction Department, June 9, 1936.

20. Letter. D. A. McKinnon, Chief Highway Engineer, to Thomas Staunton, Contractor, July 10, 1936; Letter. W. H. Lynch, Bureau of Public Roads, to SHC, July 30, 1936; Letter. Blakeslee to SHC, December 4, 1936; Letter. E. B. Crane, Asst. Engineer, Milwaukee Road Railroad, to McKinnon, July 7, 1936; Letter. McKinnon to Staunton, July 10, 1936.

21. Memorandum. Slattery to Construction Department, SHC, June 9, 1936; Memorandum. Tilzey to Helena Office, SHC, July 10, 1936; Memorandum. Slattery to Construction Department, July 27, 1936; Letter. Blakeslee to SHC, December 4, 1936.

22. Letter. McKinnon to Slattery, August 14, 1936; Letter. Blakeslee to Tilzey, August 20, 1936; Memorandum. Slattery to Construction Department, SHC, August 21, 1936; Letter. Blakeslee to Ralph D. Rader, SHC Bridge Engineer, August 13, 1936.

23. Letter. McKinnon to Staunton, July 10, 1936; Memorandum. Tilzey to E. B. Donahue, Assistant State Highway Engineer, August 4, 1936; Memorandum. R. A. Stephenson, SHC Bridge Construction Engineer, to Tilzey, August 4, 1936; "Fall From Bridge Results in Severe Hurt," *Daily Missoulian*, August 6, 1936; Memorandum. Stephenson to Tilzey, August 18, 1936; "Excavation has Begun on First Pier for Bridge," *Daily Missoulian*, August 20, 1936.

24. Letter. Blakeslee to Ralph Rader, SHC Bridge Engineer, August 13, 1936.

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29. "Local Overpass Construction is Nearly Finished," *Daily Missoulian*, October 22, 1936; Memorandum. Tilzey to Helena Office, SHC, October 29, 1936; Letter. McKinnon to Bureau of

Public Roads, October 30, 1936; Letter. Blakeslee to Tilzey, December 4, 1936; Letter. Blakeslee to State Highway Commission, December 4, 1936.

30. Memorandum. Tilzey to Helena Office, SHC, October 30, 1936; Letter. Blakeslee to Tilzey, December 4, 1936; Letter. Blakeslee to State Highway Commissioners, December 4, 1936; Montana Highway Commission Meeting Minutes, volume 7 (July 31, 1936 - May 12, 1939), 66.

31. The city park now encompasses the abandoned Milwaukee Road Railroad grade and is located just to the west of the railroad's old depot. The overpass is now used primarily by pedestrians and bicyclists utilizing the old railroad grade as a recreational trail. Montana Highway Commission Meeting Minutes, volume 7 (July 31, 1936 - May 12, 1939), 221-222.

32. Jon Axline, *Monuments Above the Water: Montana's Historic Highway Bridges, 1860-1956*, (Helena: Montana Department of Transportation, 1993), 64, 140.

33. Axline, *Monuments Above the Water*, 64.

34. Axline, *Ibid*, 64.

35. Axline, *Ibid*, 64.

36. Axline, *Ibid*, 64-65.

37. Axline, *Ibid*, 65.

38. "T. Staunton, Rancher and Businessman, Dies," *Great Falls Tribune*, April 9, 1956; Great Falls City Directory, 1906 - 1934.

39. "T. Staunton . . . Dies," *Great Falls Tribune*, April 9, 1956; Great Falls City Directory, 1935 - 1956.

40. "Great Falls Contractor E. H. Blakeslee Dies," *Great Falls Tribune*, October 18, 1967; Robert Blakeslee Interview by Mitzi Rossillon, March 3, 1992. Notes on file, Renewable Technologies, Inc., Butte; Polk, Directory for Helena and Lewis and Clark County, 1918; State Engineer's Office, *Water Resource Survey: Ravalli County, Montana*, (Helena: State Engineer's Office, 1958), 45.

41. "\$6842 Offered for Iron in Old Bridge Across the Missouri," *Great Falls Tribune*, September 11, 1920; R.L. Polk, Great Falls City Directories, 1918 - 1967; "T. Staunton . . . Dies," *Great Falls Tribune*, April 9, 1956.

42. "Great Falls Contractor E.H. Blakeslee Dies," *Great Falls Tribune*, October 18, 1967; Blakeslee Interview, March, 1992; Great Falls City Directories, 1949 - 1967.

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